

T-1 3/4 (5mm)

HLMP-D150A

Red Diffused

HLMP-D155A

Red Clear with Standoff

T-100 (3mm)

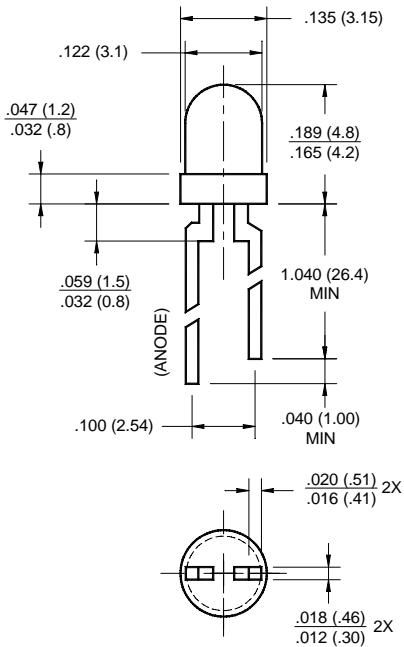
HLMP-K150

Red Diffused

HLMP-K155

Red Clear

## PACKAGE DIMENSIONS



**HLMP-K150/K155**

## FEATURES

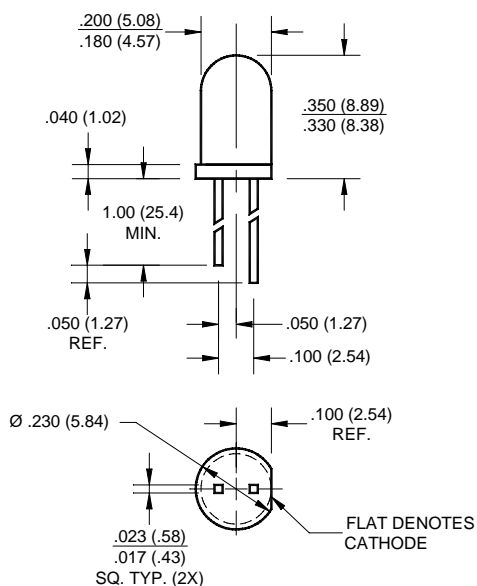
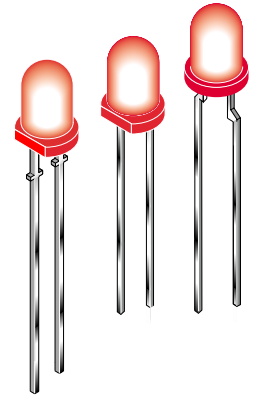
- Wide Viewing Angle
- Deep Red Color

## DESCRIPTION

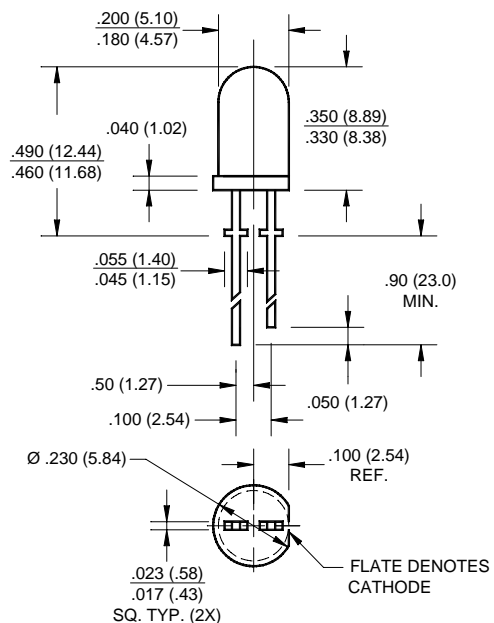
Exceptional light output typifies these devices and provides for their use over a broad range of drive currents. The LED material is based on double heterojunction (DH) AlGaAs/GaAs technology.

## NOTES:

1. ALL DIMENSIONS ARE IN INCHES (mm).
2. TOLERANCE ARE  $\pm .010"$  UNLESS OTHERWISE SPECIFIED.
3. AN EPOXY MENISCUS MAY EXTEND ABOUT  $.040"$  (1 mm) DOWN THE LEADS.



**HLMP-D150A**



**HLMP-D155A**

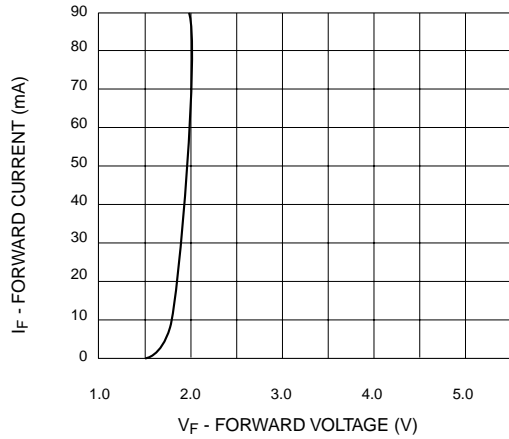
**ABSOLUTE MAXIMUM RATING** ( $T_A = 25^\circ\text{C}$ )

| Parameter                             | RED         | UNITS |
|---------------------------------------|-------------|-------|
| Power Dissipation                     | 87          | mW    |
| Peak Forward Current (f=1kHz, DF=10%) | 300         | mA    |
| Continuous DC Forward Current         | 30          | mA    |
| Lead Soldering Time at 260° C         | 5           | sec   |
| Operating Temperature                 | -20 to +100 | °C    |
| Storage Temperature                   | -55 to +100 | °C    |

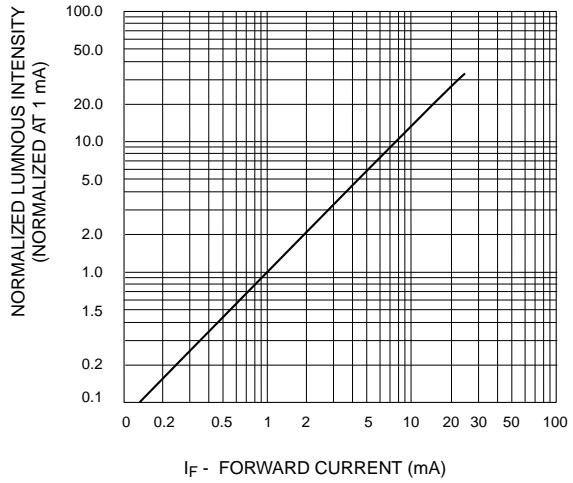
**ELECTRICAL / OPTICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$ )

| Parameter                | HLMP-K150 | HLMP-K155 | HLMP-D150A | HLMP-D155A | Condition              |
|--------------------------|-----------|-----------|------------|------------|------------------------|
| Luminous Intensity (mcd) |           |           |            |            | $I_F = 1\text{mA}$     |
| Minimum                  | 1.2       | 2.0       | 1.2        | 3.0        |                        |
| Typical                  | 2.0       | 3.0       | 3.0        | 10.0       |                        |
| Forward Voltage (V)      |           |           |            |            | $I_F = 1\text{mA}$     |
| Maximum                  | 1.8       | 1.8       | 1.8        | 1.8        |                        |
| Typical                  | 1.6       | 1.6       | 1.6        | 1.6        |                        |
| Peak Wavelength (nm)     | 660       | 660       | 660        | 660        | $I_F = 1\text{mA}$     |
| Spectral Line Half Width | 20        | 20        | 20         | 20         | $I_F = 1\text{mA}$     |
| Reverse Voltage (V)      | 5         | 5         | 5          | 5          | $I_R = 100\mu\text{A}$ |
| Viewing Angle (°)        | 60        | 45        | 65         | 24         | $I_F = 1\text{mA}$     |

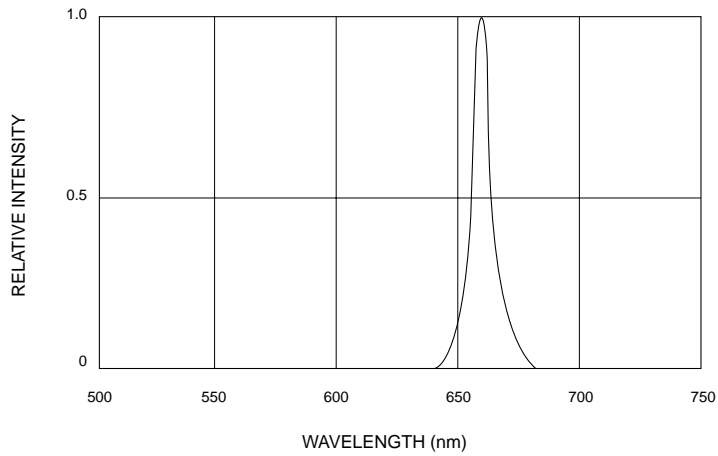
**TYPICAL PERFORMANCE CURVES ( $T_A = 25^\circ\text{C}$ )**



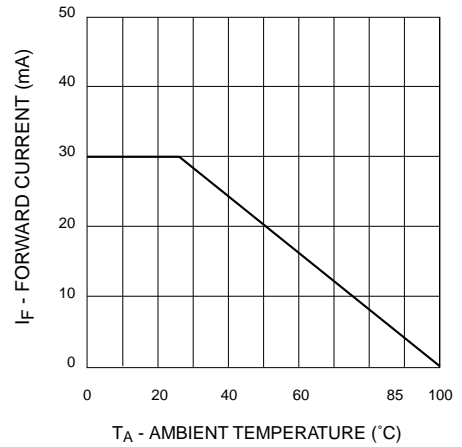
**Fig. 1 Forward Current vs. Forward Voltage**



**Fig. 2 Relative Luminous Intensity vs. DC Forward Current**

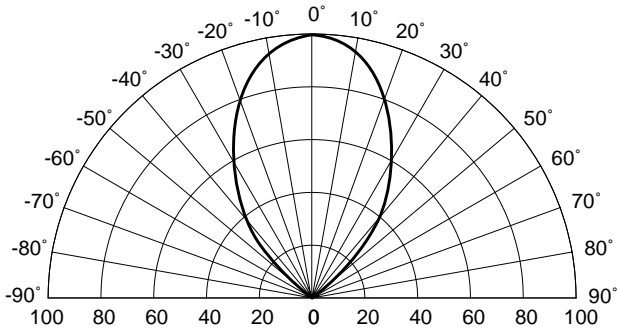


**Fig. 3 Relative Intensity vs. Peak Wavelength**



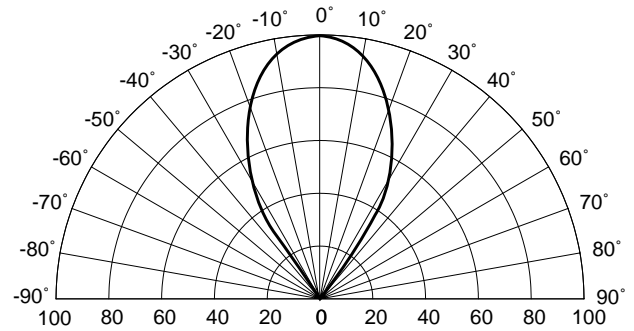
**Fig. 4 Current Derating Curve**

**TYPICAL PERFORMANCE CURVES** ( $T_A = 25^\circ\text{C}$ )



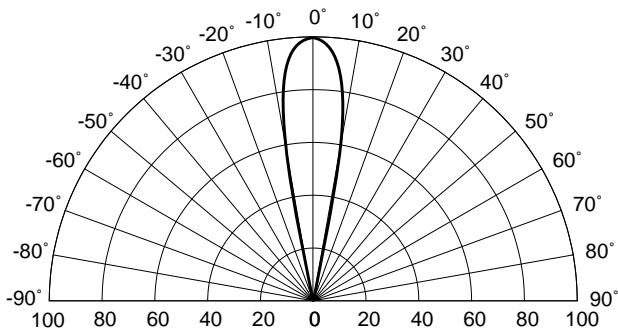
REL. LUMINOUS INTENSITY (%)

**Fig. 5A Radiation Diagram (HLMP-D150A)**



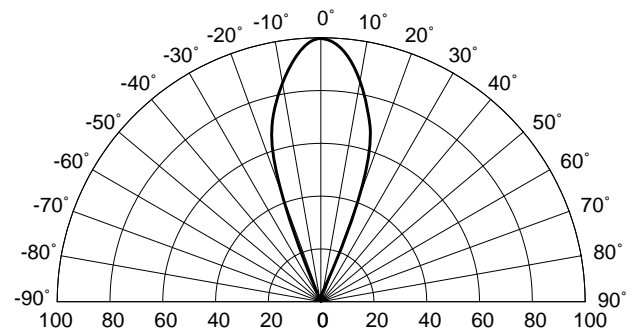
REL. LUMINOUS INTENSITY (%)

**Fig. 5B Radiation Diagram (HLMP-K150)**



REL. LUMINOUS INTENSITY (%)

**Fig. 5C Radiation Diagram (HLMP-D155A)**



REL. LUMINOUS INTENSITY (%)

**Fig. 5D Radiation Diagram (HLMP-K155)**

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.